

RADIATION PROTECTION QUALIFICATION STANDARD COMPARISON TABLE

PROPOSED CHANGES AND IMPLICATIONS

SECTION 1.0 GENERAL TECHNICAL		
New Proposed RP Qualification Standard	Old May 1995 RP Qualification Standard	Impact
New Competency 1.1 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of the various types of radiation and how they interact with matter .	None.	Need to assess participant's qualifications against the New Competency 1.1.
New Competency 1.2 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of radioactivity and transformation mechanisms .	None.	Need to assess participant's qualifications against the New Competency 1.2.
New Competency 1.3 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of principles and methods for internal and external dosimetry .	Old Competency 1.1 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of Department of Energy radiation protection program requirements as they relate to contractor activities.	Need to assess participant's qualifications against the New Competencies 1.3 and 1.4. Old Competency 1.1 emphasizes knowledge of DOE requirements and not technical aspects.
New Competency 1.4 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of biological effects of radiation .		
New Competency 1.5 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of the principles and use of radiological instrumentation and radiological monitoring/survey practices .	Old Competency 1.3 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of the various radiation detection, criticality and contamination monitoring systems and components .	Old Competency 1.3 is equivalent to New Competency 1.5. New Competency 1.5 has more detailed "Supporting Knowledge and Skills."
New Competency 1.6 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of internal and external radiation protection principles and control techniques .	None.	Need to assess participant's qualifications against the New Competency 1.6.
New Competency 1.7 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of ALARA principles , and their application to radiological work activities.	Old Competency 1.5 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of ALARA principles , and review and evaluate radiological programs, job planning, and job performance.	Old Competency 1.5 is equivalent to New Competency 1.7.

<p>New Competency 1.8 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of the application of engineered radiological controls and facility design, including containment/confinement systems.</p>	<p>Old Competency 1.2 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of the basic construction, operation, and theory of containment and confinement systems design.</p> <p>Old Competency 1.4 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of the engineered radiological controls and design criteria.</p>	<p>If BOTH Old Competencies 1.2 and 1.4 are satisfied, then New Competency 1.8 is fulfilled.</p>
<p>New Competency 1.9 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of radiological hazards associated with the following:</p> <ul style="list-style-type: none"> • Plutonium operations • Uranium operations • Tritium operations • Production/experimental reactors • Accelerator operations • Waste handling/processing operations • Decontamination and decommissioning • Use of Radiation Generating Devices • Environmental restoration activities 	<p>None.</p>	<p>Need to assess participant's qualifications against the New Competency 1.9.</p>

SECTION 2.0 REGULATORY		
New Proposed RP Qualification Standard	Old May 1995 RP Qualification Standard	Impact
<p>New Competency 2.1 - Radiation protection personnel shall demonstrate an <u>expert level knowledge</u> of the DOE radiation protection systems for occupational workers as set forth in the following policy, requirements and guidance documents:</p> <ul style="list-style-type: none"> • 10 CFR 835 • IGs for use of 10 CFR 835 • DOE P 441.1 • DOE N 441.2 	<p>Old Competency 2.1 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of the following Federal regulations, codes, notices and DOE Orders related to radiation protection:</p> <ul style="list-style-type: none"> • 10 CFR 835 • DOE N5400.12 • DOE Order 5400.5 • DOE Order 5480.4 • DOE Order 5480.11 • Office of Health Implementation Guides for use with Title 10 CFR Part 835 	<p>Need to assess participant's qualifications against the New Competency 2.1. Old Competency 2.1 requires a WORKING level knowledge, whereas New Competency 2.1 requires an EXPERT level knowledge and includes DOE P441.1 and DOE N441.2.</p>
<p>New Competency 2.2 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of the following Federal regulations, codes, policy, and DOE Orders, notices and standards related to radiation protection:</p> <ul style="list-style-type: none"> • DOE P 450.2A • DOE Order 5400.5, or 10 CFR 834 when promulgated • DOE Order 5480.4 • DOE Order 232.1 • DOE Order 5480.19 • Radiological Control Manual 	<p>Old Competency 2.1 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of the following Federal regulations, codes, notices and DOE Orders related to radiation protection:</p> <ul style="list-style-type: none"> • 10 CFR 835 • DOE N5400.12 • DOE Order 5400.5 • DOE Order 5480.4 • DOE Order 5480.11 • Office of Health Implementation Guides for use with Title 10 CFR Part 835 <p>Old Competency 2.8 - Radiation protection personnel shall demonstrate an <u>expert level knowledge</u> of the contents of the DOE Radiological Control Manual.</p> <p>Old Competency 2.9 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the guidance provided in DOE Order 5480.19 "Conduct of Operations" as related to the oversight of site/facility conduct of radiological work activities.</p>	<p>If ALL THREE Old Competencies 2.1, 2.8, and 2.9 are satisfied, then New Competency 2.2 is fulfilled with the exception that Old Competency 2.9 requires a FAMILIARITY level knowledge of Order 5480.19, whereas New Competency 2.2 requires a WORKING level knowledge.</p>
<p>New Competency 2.3 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the identification, reporting, investigation, and enforcement related to potential noncompliance with nuclear safety requirements.</p>	<p>None.</p>	<p>Need to assess participant's qualifications against the New Competency 2.3.</p>

New Competency 2.4 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of radioactive waste management .	Old Competency 2.2 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the following Federal regulations, codes, standards and DOE Orders related to radioactive waste : <ul style="list-style-type: none"> • 10 CFR 60 • 10 CFR 61 • 29 CFR 1910.120 • DOE Order 1540.2 • DOE Order 5400.3 • DOE Order 5820.2A 	Old Competency 2.2 is equivalent to New Competency 2.4.
New Competency 2.5 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of DOE Orders related to safety management documentation .	Old Competency 2.4 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the following Federal regulations, codes, standards and DOE Orders related to safety analysis : <ul style="list-style-type: none"> • DOE Order 5480.24 • DOE Order 5480.29 • DOE Order 5480.30 • DOE Order 5481.1B • DOE Order 6430.1A 	Old Competency 2.4 is NOT equivalent to New Competency 2.5. Need to assess participant's qualifications against the New Competency 2.5.
New Competency 2.6 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of Federal regulations and DOE Orders related to emergency planning and preparedness as they pertain to radiological incidents .	Old Competency 2.5 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the following Federal regulations, codes, standards and DOE Orders related to emergency planning and preparedness as they pertain to radiological incidents : 29 CFR 1910.120, DOE Order 5500.1B, DOE Order 5500.2B, DOE Order 5500.3A, DOE Order 5500.4A, DOE Order 5500.5A, DOE Order 5500.6B, DOE Order 5500.7B, DOE Order 5500.8A, DOE Order 5500.9A, DOE Order 5500.10, DOE Order 5530.3, DOE Order 5530.5	Old Competency 2.5 is equivalent to New Competency 2.6.
New Competency 2.7 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of DOE Orders related to Federal and contractor personnel training and qualification .	Old Competency 2.6 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the following Federal regulations, codes, standards and DOE Orders related to Federal and contractor personnel training and qualification : <ul style="list-style-type: none"> • DOE Order 5480.18B • DOE Order 5480.20A • DOE Order 3410 	Old Competency 2.6 is equivalent to New Competency 2.7.

New Competency 2.8 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of national and international radiation protection standards and recommendations.	Old Competency 2.7 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of national and international radiation protection standards and recommendations.	Old Competency 2.7 is equivalent to New Competency 2.8.
New Competency 2.9 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the Federal regulations, guidelines, and Orders pertaining to the decontamination and decommissioning of nuclear facilities.	Old Competency 2.10 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the Federal regulations, guidelines, and Orders pertaining to the decontamination and decommissioning of nuclear facilities.	Old Competency 2.10 is equivalent to New Competency 2.9.
New Competency 2.10 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of standards and Orders pertaining to the packaging and transportation of radioactive materials .	Old Competency 2.12 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the Federal regulations, guidelines, and Orders pertaining to the packaging and transportation of radioactive materials .	Old Competency 2.12 is equivalent to New Competency 2.10.
New Competency 2.11 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the Department's philosophy and approach to implementing Integrated Safety Management .	None.	Need to assess participant's qualifications against the New Competency 2.11.
New Competency 2.12 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the Department's guidance for the structure, function, and operation of a radiation-generating device (RGD) control program as discussed in Implementation Guide G-10 CFR 835/C3-Rev. 2, Radiation Generating Devices.	Old Competency 2.3 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the content of the following industry standards for radiation generating devices and the application of the following standards to Department of Energy radiation protection practices: <ul style="list-style-type: none"> • ANSI N43.2-1988 • ANSI N543-1974 • 10 CFR 34 • 10 CFR 34.31 	Old Competency 2.3 is equivalent to New Competency 2.12.
	Old Competency 2.11 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the technical safety requirements (TSRs) related to radiation protection activities in accordance with DOE Order 5480.22 "Technical Safety Requirements."	Old Competency 2.11 is omitted, but is covered in New Competency 2.5 as a "Supporting Knowledge and Skill."

SECTION 3.0 ADMINISTRATIVE		
New Proposed RP Qualification Standard	Old May 1995 RP Qualification Standard	Impact
New Competency 3.1 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of contract management and administration of contractor organizations participating in the radiological protection programs	Old Competency 3.1 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of contract management and administration and appraise contractor organizations participating in the radiological protection programs	Old Competency 3.1 is equivalent to New Competency 3.1.
New Competency 3.2 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the general principles associated with project management .	Old Competency 3.2 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of the general principles associated with project management .	Old Competency 3.2 is equivalent to New Competency 3.2.
	Old Competency 3.3 - Radiation protection personnel shall demonstrate a <u>familiarity level knowledge</u> of effective negotiation skills .	Old Competency 3.3 is omitted.

SECTION 4.0 MANAGEMENT, ASSESSMENT AND OVERSIGHT		
New Proposed RP Qualification Standard	Old May 1995 RP Qualification Standard	Impact
New Competency 4.1 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of assessment (compliance and performance) principles and techniques necessary to identify facility and program deficiencies, potential systemic causes, corrective actions, and best practices.	Old Competency 4.1 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of assessment (compliance and performance) principles and techniques necessary to identify facility and program deficiencies, best practices, potential systemic causes, and to identify corrective actions.	Old Competency 4.1 is equivalent to New Competency 4.1.
New Competency 4.2 - Radiation protection personnel <u>shall demonstrate the ability</u> to evaluate the adequacy of radiation protection programs against the requirements, regulations and Orders pertaining to radiation protection.	Old Competency 4.2 - Radiation protection personnel <u>shall demonstrate the ability</u> to evaluate the adequacy of local compliance with the requirements of the following radiation protection Orders and regulations. <ul style="list-style-type: none"> • 10 CFR 835 • DOE N5400.12 • DOE Order 5480.4 • DOE Order 5400.5 • DOE Order 5480.11 • DOE N5480.10 • DOE Order 5530.3 • DOE Order 5530.5 	Old Competency 4.2 is equivalent to New Competency 4.2.
New Competency 4.3 - Radiation protection personnel <u>shall demonstrate the ability</u> to trend radiation protection-related information/data.	Old Competency 4.6 - Radiation protection personnel <u>shall demonstrate the ability</u> to trend radiation protection-related information/data.	Old Competency 4.6 is equivalent to New Competency 4.3.
New Competency 4.4 - Radiation protection personnel shall <u>demonstrate the ability</u> to effectively communicate the hazards associated with exposure to ionizing radiation.	None.	Need to assess participant's qualifications against the New Competency 4.4.
	Old Competency 4.3 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of DOE Radiological Control Manual implementation process.	Old Competency 4.3 is omitted.

	Old Competency 4.4 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of the implementation process for 10 CFR 835 .	Old Competency 4.4 is omitted.
	Old Competency 4.5 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of Department of Energy and contractor radiological control programs and develop criteria for evaluating the readiness of a radiological protection program .	Old Competency 4.5 is omitted.
	Old Competency 4.7 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of the essential elements associated with performance audits and inspections .	Old Competency 4.7 is omitted.
	Old Competency 4.8 - Radiation protection personnel shall demonstrate a <u>working level knowledge</u> of the inspection techniques used to identify event precursors .	Old Competency 4.8 is omitted.